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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,552	04/30/2001	Barton A. Smith	ARC920000132US1	3403

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FLEIT, KAIN, GIBBONS, GUTMAN, BONGINI
& BIANCO P.L.
ONE BOCA COMMERCE CENTER
551 NORTHWEST 77TH STREET, SUITE 111
BOCA RATON, FL 33487

EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 02/22/2005

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/845,552

Applicant(s)

SMITH ET AL.

Examiner

Kimnhung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 10 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Application has been examined. The claims 1-34 are pending. The examination results are as following.

1. In view of the Appeal Brief filed on 5-10-04, PROSECUTION IS HEREBY REOPENED. A new ground of rejections are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-30 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Holehan (US 6,043,809).

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Regarding claim 1, Holehan discloses in figure 1, an electronic device comprising a housing having at least one outside edge; at least one touchpad (122) disposed along at least a portion of the at least one outside edge of the housing; and a user input detector (see detector circuit, see col. 6, lines 20-24), electrically coupled to the touchpad, for detecting user input from the at least one touchpad disposed along at least a portion of the outside edge of the housing.

Regarding claims 2-3, Holehan discloses in fig. 1, that, wherein the at least one touchpad extends substantially about a perimeter of the housing along the at least one outside edge of the housing, and the perimeter of the housing is rounded.

Regarding claims 4 and 29, Holehan discloses that wherein the user input detector comprises capacitive sensing technology for detecting user input (see col. 4, lines 4-7).

Regarding claims 5 and 30, Holehan discloses that wherein the at least one touchpad comprises at least an inherent texture for providing a tactile feedback to the user.

Regarding claim 6, Holehan et al. discloses that the electronic device of claim 1, wherein the housing comprises at least one of keyboard.

Regarding claim 7, Holehan discloses that, wherein a sliding contact (when we use scrolling bar) with the touchpad causes an adjustment of a variable (see col. 2, lines 51-55).

Regarding claim 8, Holehan discloses in fig. 1, that one outside corner edge and the touchpad is disposed about the at least one outside corner edge.

Regarding claim 9, Holehan discloses in fig. 1, that the electronic device of claim 8, wherein the outside corner edge is rounded.

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Regarding 10, Holehan discloses that the electronic device of claim 1, wherein the housing comprises a display having a display screen.

Regarding claim 11, Holehan discloses in figure 1, that the electronic device of claim 10, wherein the at least one outside edge of the housing is located about at least one edge of the display, and the at least touchpad (122) is disposed along at least a portion of the at least one edge of the display.

Regarding claim 12, Holehan discloses that the electronic device of claim 10, further comprising a primary input device (cursor) for controlling a pointer in the display, wherein the at least one touchpad serves as a secondary input device for controlling at least the scrolling (see col. 3, lines 45-46).

Regarding claim 13, Holehan discloses that the electronic device of claim 10, wherein a sliding contact with the touchpad causes at least the scrolling.

Regarding claim 14, Holehan discloses that the electronic device of claim 10, wherein a sliding contact with the at least one touchpad along one outside edge provides one-dimensional control of objects (see display when scrolling) displayed on the display screen.

Regarding claims 15-16, Holehan discloses in fig. 1, that the electronic device of claim 10, wherein a plurality of touchpads (122, 124, 126) are disposed along at least a portion of a plurality of outside edges of the housing and each touchpad controls movement in one of at least two different one-dimensional axes (see scrolling 122, 124, scrolls up and down, see col. 3, lines 47-50), whereby user input provided along the plurality of

touchpads therefore, provides multi- dimensional manipulation of objects displayed on the display screen.

Regarding claims 17-18, Holehan discloses that wherein the multi-dimensional manipulation of objects comprises two-dimensional manipulation of objects displayed on the display screen as discussed above and should have an inherent comprises three-dimensional manipulation of objects displayed on the display screen.

Regarding claim 19, Holehan discloses in figure 1 that a method of touching about the outside edge of a housing detecting the touching, and transmitting an electrical signal upon detecting the touching to a control circuit (see detector), wherein the control circuit acts upon the electrical signal as discussed above.

Regarding claim 20, Holehan discloses the method of claim 19, wherein the step of touching is substantially about a perimeter along the outside edge (fig. 1)

Regarding claim 21, Holehan disclose the method of claim 19, wherein the step of touching comprises sliding along the outside edge as discussed above.

Regarding claim 22. The method of claim 19, further comprising the steps of: transmitting an output signal from the control circuit (see detector) to a graphical display, and navigating (see scrolling 114, 116) within the display in accordance with the output signal.

Regarding claim 23, Holehan discloses the method of claim 19, wherein the housing comprises at least two outside edges (122, 124) and the step of touching comprises using an inherent two hands to provide dual sliding contacts along at least two different outside

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edges, and wherein the step comprises using tactile feel to position the fingers along the outside edge of the housing as discussed above.

Regarding claim 25, Holehan discloses in figure 1 that a touchpad input device comprising a touchpad (122) disposed along at least a portion of at least one outside edge of a housing, a user input detector, electrically coupled to the touchpad, for detecting user input from the touchpad and transmitting input signals, and a control circuit electrically coupled to the user input detector, wherein the control circuit acts upon the input signals from the user input detector (see col. 6, lines 20-24).

Regarding claim 26, Holehan discloses the touchpad input device of claim 25, further comprising a display electrically coupled to the control circuit wherein the control circuit transmits output signals to the display (see col. 6, lines 20-24).

Regarding claims 27-28 as discussed above.

Regarding claim 34, Holehan discloses in fig. 1 that wherein the touchpad comprises a touchpad strip disposed along at least a portion of at least one outside edge of the housing for detecting user input along the touch strip.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holehan (US 6,043,809) in view of Anderson (US 6,509,847) and in view of Caldwell et al. (US 5,867,111).

Holehan discloses every feature of the claimed invention, excluding the touch pad input device comprising an analog-to digital converter, threshold comparator and electronic signal amplifier electrically coupled between the user input detector and the control circuit. Anderson discloses a touch input system having an analog-to digital converter (412, see Anderson, col. 7, lines 20-25). Caldwell et al. discloses in fig. 5, a touch control system having comparator (86) and electronic signal amplifier (80) electrically should be coupled to the touch input (see col. 7, lines 24-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using of analog-to digital converter as taught by Anderson and a touch control system having comparator (86) and electronic signal amplifier (80) electrically should be coupled to the touch input as taught by Caldwell et al. because this would provide the techniques for analog to digital conversion to eliminate inconsistencies in entry of the access code by the user (see Anderson, col. 7, lines 21-27) and provide the amplifier signal to the system.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number is 703-308-0425. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (703) 308-6725. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimnhung Nguyen
February 18, 2005



ALEXANDER EISEN
PRIMARY EXAMINER